



# The Disappearing Waterfall

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The San Rafael waterfall, when it was the largest waterfall in Ecuador. 11/28/2012

The largest waterfall in ECUADOR, known as the SAN RAFAEL Waterfall, has vanished after a sinkhole swallowed part of its water source. Surrounded by VEGETATION and rare butterflies, this was one of the most beautiful landscapes in ECUADOR.

Spell WATER Spell FALL

What vanished off the face of the earth in this lesson? WATERFALL

What is the name of the waterfall we are talking about today? SAN RAFAEL

Question Type Key

KNOWN – SEMI-OPEN – PRIOR KNOWLEDGE – MATH – OPEN - VAKT



What country is the waterfall in? ECUADOR

What swallowed this water source? SINKHOLE

Name one thing that surrounded this waterfall? VEGETATION BUTTERFLY

In what country did this waterfall exist? ECUADOR

What is a WATERFALL? Waterfalls form where a river or stream drops off of a cliff. There is usually a pond or lake at the bottom that the water falls into. Waterfalls can be formed many different ways. Land FORMATION can cause a waterfall, especially when there is a CLIFF or ledge naturally, in which rushing waters will simply fall over the edge. Waterfalls can also be caused by melted ice from ICEBERG.

Spell RUSHING Spell ICEBERG Spell LEDGE

Waterfalls form where a river or stream drop off of what? CLIFF

Linguistically, what kind of word is waterfall? COMPOUND

Name one thing usually at the bottom of a waterfall. POND, LAKE

Name one way a waterfall is formed. LAND FORMATION, MELTED ICE

The San Rafael Waterfall dropped 490 feet into a crater-like basin, after traveling the COCA RIVER, through a thick cloud forest at the intersection of the ANDES Mountains and the AMAZON Basin. As the country's tallest waterfall, the San Rafael Waterfall attracted tens of thousands of visitors per year.

Spell DROP Spell CRATER Spell AMAZON

Which river did this waterfall travel? COCA RIVER

Which mountains did this waterfall exist in? ANDES MOUNTAINS

How many feet tall was the San Rafael Waterfall drop? 490

If one yard = three feet, how many yards long was the drop?  $3/490 = 163.3$  yards

For fun, do you know how long a football field is in yards? 100 YARDS

The National AERONAUTICS and Space Administration (NASA), says the iconic waterfall is now gone, replaced by three streams. All TOURISM to the San Rafael Waterfall has been closed and the attraction no longer appears on [www.ecuador.travel](http://www.ecuador.travel), the country's official travel website. At this time the Ministry of Tourism does not plan to RECONSTRUCT the waterfall.

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Spell NASA Spell CLOSED Spell ICONIC

What has been closed at San Rafael? TOURISM

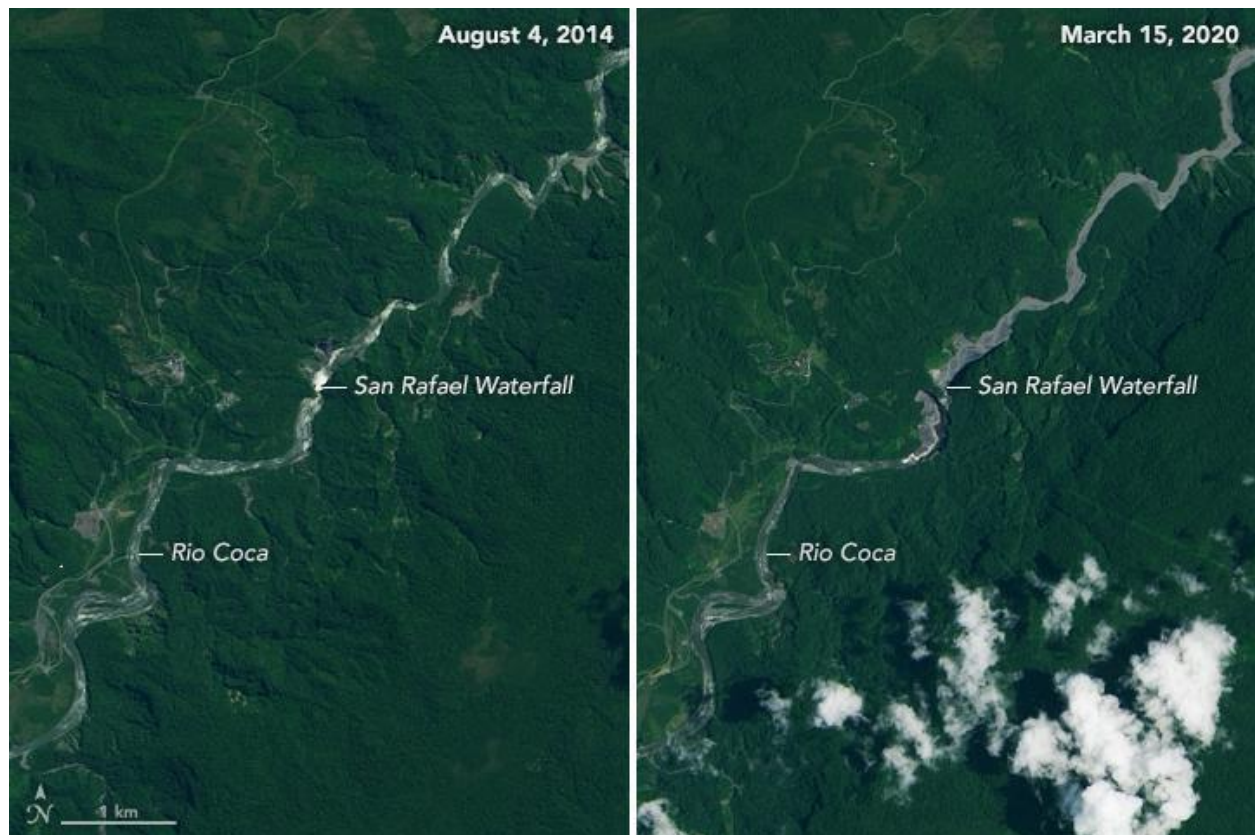
What has the waterfall been replaced by? 3 STREAMS

On what website is this no longer found? [WWW.ECUADOR.TRAVEL](http://WWW.ECUADOR.TRAVEL)

Point to the waterfall on the map.

What is the difference, in years, between these 2 NASA maps?  $2020 - 2014 = 6$  years

Why do you think NASA is reporting on the disappearance of the waterfall?



The left side is a photo from 2014. The right side is a photo from 2020.

So what happened to the waterfall? The MINISTRY of the ENVIRONMENT cannot determine an exact cause. There are conflicting theories as to what happened. One group says this is a natural PHENOMENON. Another attributes the disappearance of the falls to construction of the country's largest HYDROELECTRIC plant (electricity powered by water) on the river. Technicians

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EVALUATED the waterfall and reported “possible undermining of the river’s path, prior to the fall of the waterfall.”

Spell CAUSE Spell THEORY Spell TECHNICIAN

Who cannot determine the cause of the disappearing waterfall? MINISTRY OF THE ENVIRONMENT

What is hydroelectricity powered by? WATER

Name one theory of why the waterfall disappeared. HYDROELECTRIC PLANT NATURAL PHENOMENON

Not to fear – many famous waterfalls are still alive and kicking to visit! The most famous waterfall in North America is the NIAGARA Falls. Niagara is a collection of three different waterfalls found in two countries. One side is found in New York State in the United States, and the other is found in ONTARIO, Canada. The tallest uninterrupted waterfall in the world is Angel Falls in VENEZUELA, at a height of 979 meters.

Spell NORTH AMERICA Spell CANADA Spell FOUND

What is the most famous North American waterfall? NIAGARA FALLS

How many waterfalls are contained in Niagara? THREE

How many countries is Niagara located in? 2

In what US state is Niagara located? NEW YORK

What is the tallest waterfall? ANGEL FALLS

What country is this located in? VENEZUELA

Do a google search for images of Niagara Falls.

Locate the US and Canadian sides of Niagara Falls on a map.

Creative writing:

Imagine you are visiting a waterfall. What kind of experience do you anticipate?

Write a mythological story explaining the disappearance of the San Rafael waterfall.

Resources:

<https://ecuador.travel/en/?s=San+Rafael>

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<https://earthobservatory.nasa.gov/images/146502/the-disappearance-of-ecuadors-tallest-waterfall>

<https://www.cnn.com/2020/04/01/world/san-rafael-waterfall-gone-trnd/index.html>

[https://en.wikipedia.org/wiki/Angel\\_Falls](https://en.wikipedia.org/wiki/Angel_Falls)

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